



RT65



RT65 PRODUCT GUIDE

Complies with ANSI B30.5

Rough Terrain Crane

65 U.S. ton (60 metric ton) capacity
141.1' (43 m) main boom
33' - 56' (10 - 17 m) jib



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**CAL CRANE &
EQUIPMENT**

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RT65 ROUGH TERRAIN CRANE

FEATURES



Formed boom made with high-yield steel which reduces the operating weight of the boom and maximizes performance.

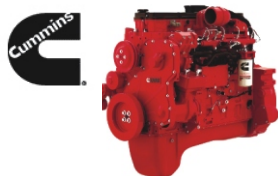
KESSLER•CO

We chose the Kessler Co. brand axle because Kessler Co. offers the most reliable product on the market and has years of experience in manufacturing mobile crane axles.



Full-vision operator cab is designed for maximum comfort and ease of operation.

The Dana 13.5HR 32662 transmission offers the latest technology for the diverse needs of off-road cranes.



The Cummins QSB 6.7 diesel engine is TIER-III compliant and is proven to have superior performance and durability.

PAT Hirschmann HC4900 LMI (load moment indicator) is the industry's leading electronic monitoring system available.



STANDARD EQUIPMENT

- Formed boom
- Offsettable jib 0° - 20° - 40°
- Auxiliary winch
- Cameras
- Auxiliary lifting sheave
- 60 U.S. ton (55 ton) hook block
- 6.1 U.S. ton (5.5 ton) hook ball
- Rotation-resistant wire rope
- Deluxe tilt seat
- Air conditioner / Heater
- Work light package: boom, cab and super structure
- Revolving amber light
- AM/FM radio
- Battery disconnect switch
- Front and rear lift lugs

ANSI & CE Standard

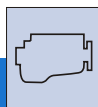
**RT65 ROUGH TERRAIN CRANE****KEY / SYMBOLS**

	Engine	p4		Load Moment Indicator (LMI)	p5
	Transmission	p4		Max. boom length with jib ext.	p5
	Axles	p4		Main boom	p6
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RT65 ROUGH TERRAIN CRANE

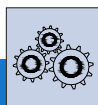
TECHNICAL DESCRIPTION



ENGINE

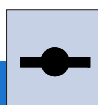
Cummins QSB 6.7 Inline 6 cylinder intercooled turbo diesel.
Kilowatts Hp (kW) 215 (160) @ 2500 rpm.
Peak torque ft. lb. (Nm) 655 (888) @ 1500 rpm.
80 gallon (303 L) fuel tank capacity.

USA Federal EPA / California ARB / European EU / Tier III emission rating.



TRANSMISSION

Dana powershift transmission - 6 speeds forward and 6 speeds reverse.
Front axle disconnect offering both 4x4 and 4x2 operation.
Max. speed 25.7 mph (41.4 km/hr).



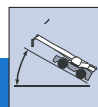
AXLES

Kessler front and rear steering axles with planetary reduction.
Front - Rigid mount.
Rear - Full-floating rear axle. Automatic rear axle oscillating lock occurs when superstructure is swung 3° from centerline in either direction.



STEERING

Power steering with four independent modes:
Front-Wheel
Rear-Wheel
All-Wheel
Crab



GRADEABILITY

149% max. gradeability in 1st gear 4x4.
5.2% max. gradeability in 6th gear 4x2.



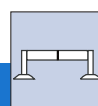
BRAKES

18.5 inches (470 mm) diameter disc brakes on all wheels hydraulically operated.



TIRES AND WHEELS

26.5 x 25 - 32 ply rating, earthmoving-style tires. Steel disc wheels.



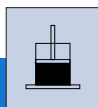
OUTRIGGER SYSTEM

Four independent horizontal beams and vertical jacks with integral holding valves, each independently controlled from operator cab.
100% - Fully extended outriggers
footprint 512.5 sq. ft. (47.6 sq. m).
50% - Mid position outriggers
footprint 358.7 sq. ft. (33.32 sq. m).
0% - Fully retracted outriggers
footprint 205 sq. ft. (19 sq. m).
Octagonal, steel fabricated
pontoon 2.74 sq. ft. (0.25 sq. m).
Total floating ground bearing
area 10.9 sq. ft. (1.02 sq. m).
Outrigger span Length 22.8 ft. (6.9 m).
Width 22.8 ft. (6.9 m).



RT65 ROUGH TERRAIN CRANE

TECHNICAL DESCRIPTION



HYDRAULIC SYSTEM

PERMCO hydraulic pumps:
Gear pump for main and auxiliary winches, boom hoist and telescope cylinders.
Gear pump for steering.
Gear pump for outriggers and slewing.
185 gallon (700 L) hydraulic reservoir with external sight and temperature gauge.

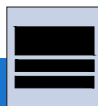
Easily accessible (10 micron) cartridge-style full-flow filters with bypass protection.
Max. operating pressure: 28MPa (4060 psi, 279.9 bar).



OPERATOR CAB

Full-vision operator cab designed for maximum comfort. All steel fabrication with acoustical lining and tinted safety glass throughout. The cab has a sliding door on the left and a sliding window on the right with a swing-up skylight with retractable shade and wiper motor. Fully adjustable deluxe seat with tilt. Foot controls for boom telescope, service brake and engine throttle. Tilt steering.

Temperature control is provided by a hydraulically driven air conditioning unit. Easy view dashboard with gauges for all engine sensors and rocker switch outrigger controls. Standard amenities also include bubble level, dome light, left-side rearview mirror, seat belt, travel swing lock and signal horn.



COUNTERWEIGHT

Single 15,430 lbs. (7,000 kg) fixed counterweight.
Length 8.5 ft. (2.6 m).
Width 1.9 ft. (0.6 m).
Height 2.3 ft. (0.7 m).



SWING

Bi-directional hydraulic swing drive with multi-disc wet brake and planetary reduction gearbox. Spring-applied hydraulically released swing brake and 360° pneumatic positive swing lock.
Max. swing speed: 2.5 rpm.



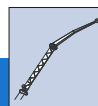
LOAD MOMENT INDICATOR (LMI)

PAT Hirschmann HC4900 LMI control system. iSCOUT IC4600 graphic display load moment and anti-two block system with audio-visual warning and function limiter.

System displays the following information: crane configuration, boom length, boom angle, load radius, allowed capacity, actual load, and load percentage of allowed capacity.

System includes settable work parameters: min./max. boom length, min./max. boom angle, defined swing area.

GREER RCI 777 LMI system also available for North America.



MAX. BOOM LENGTH WITH JIB EXTENSION

33-56 ft. (10-17 m) jib consisting of 33 ft. (10 m) lattice side stow jib and 23 ft. (7 m) manual pull out section. Main jib is offsettable at 0° - 20° and 40°.

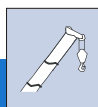
Max. tip height with 33 ft. (10 m) jib erected is 182.6 ft. (55.7 m).

Max. tip height with 33 ft. (10 m) jib + 23 ft. (7 m) fixed pullout extension is 171.9 ft. (52.4 m).



RT65 ROUGH TERRAIN CRANE

TECHNICAL DESCRIPTION

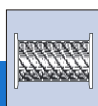


MAIN BOOM

Five section, full power boom. Boom is constructed of high-yield steel with two telescoping cylinders. 5 sheave quick reeve boom tip with removable rope guards. Rope termination lugs on both sides of boom head. Auxiliary lifting sheave and manual indicator are included.

Fully extended boom length: 141.1 ft. (43 m).
Fully retracted boom length: 35 ft. (11 m).
Max. tip height, main boom: 143.8 ft. (43.8 m).

Boom angle range (min./max.) -3° / $+78^{\circ}$.
Boom raising / lowering time 56 sec. / 63 sec.
Boom extension / retraction time 100 sec. / 80 sec.



MAIN AND AUXILIARY WINCHES

Standard two speed main and auxiliary hoists, each with planetary reduction and spring applied multi-disc wet brake.

Each hoist features:

Grooved drum lagging.

Hoist drum cable followers.

Max. permissible line pull: 15,432 lbs. (7,000 kg).

Winch speed: 0 - 492 fpm. (0 - 150 m/min).

Power up / power down.

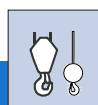
Electronic drum rotation indicators.

Rope construction: 0.75 in. (19 mm) rotation-resistant compacted strand.



CAMERAS

The crane comes equipped with two cameras—a winch camera for viewing hoist operation and a rear camera for viewing the rear of the crane. The monitor is located in the cab, and one can easily toggle between both camera views.



HOOK BLOCK AND HOOK BALL

60 U.S. ton (55-ton), 5 sheave (steel), standard reeve hook block with odd part pin-off and safety latch.

Hook block weight 1,433 lbs. (650 kg).

6.1 U.S. ton (5.5-ton) top swivel hook ball with safety latch.

Hook ball weight 265 lbs. (120 kg).

RT65 ROUGH TERRAIN CRANE

CRANE AND COMPONENT WEIGHTS

CRANE OPERATING WEIGHTS						
Gross Vehicle Weight		Front Axle Load		Rear Axle Load		
 Crane with cwt.	lb	kg	lb	kg	lb	kg
	97,576	44,260	55,600	25,220	41,976	19,040

DEDUCTIONS FOR LOAD HANDLING					
 Jib stowed aside boom	lb	kg	 5 sheave 55-ton hook block	lb	kg
	2,099	952		1,433	650
	121	55		265	120
 Auxiliary head			 5.5-ton hook ball		

TURNING RADIUS

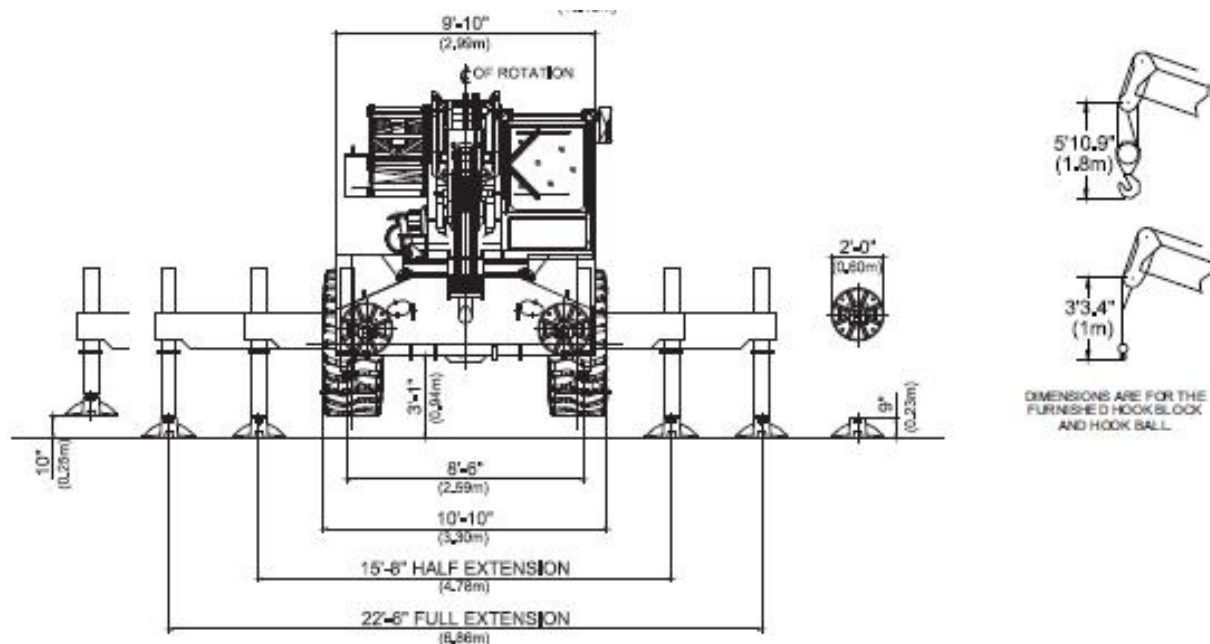
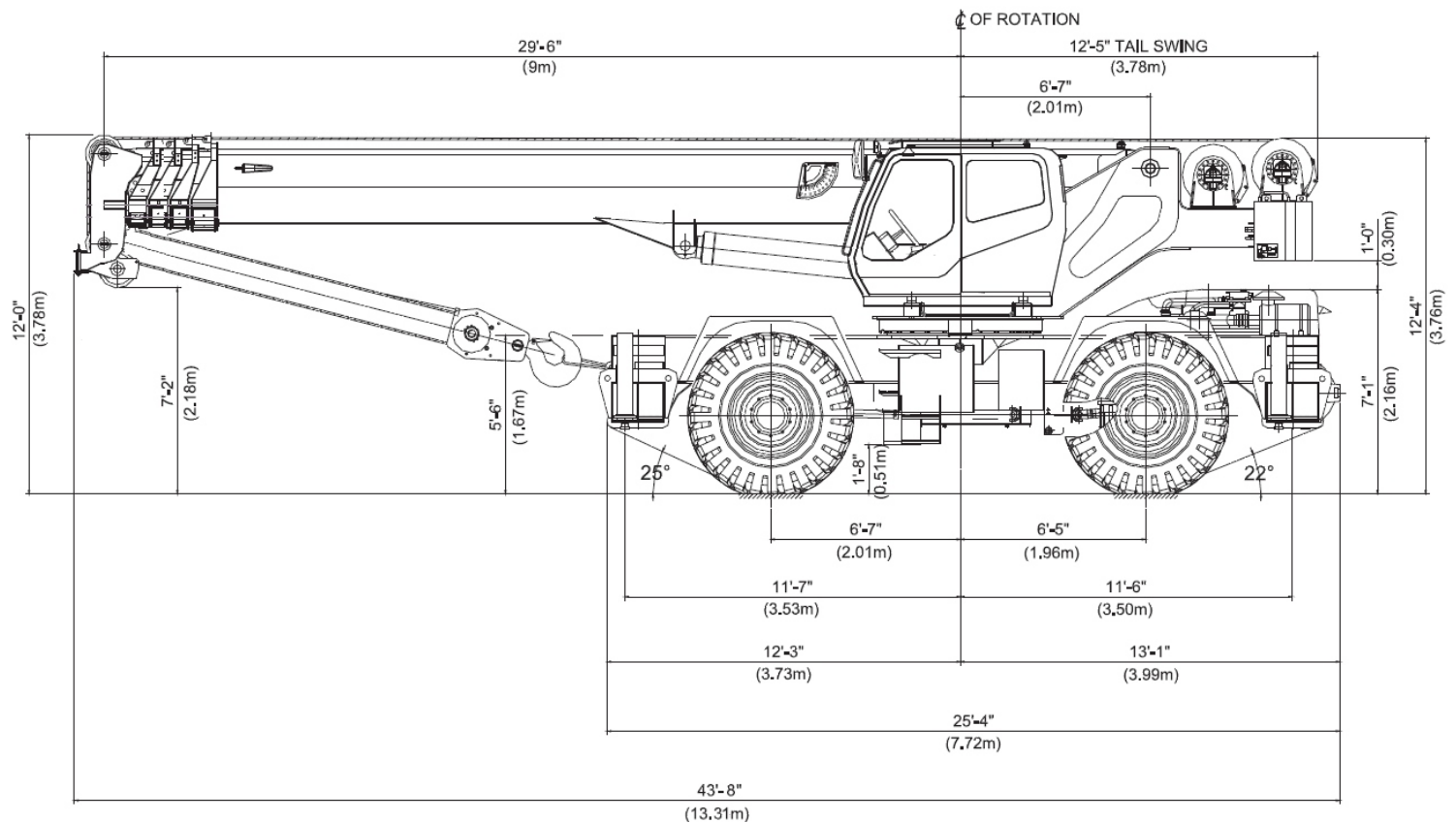
Front Wheel (4x2) Steering	Imperial	Metric
Wall to wall over boom attached	51.5 ft.	15.7 m
Wall to wall over carrier	43 ft.	13.1 m
Curb to curb	40.4 ft.	12.3 m
All Wheel (4x4) Steering	Imperial	Metric
Wall to wall over boom attached	36.4 ft.	11.1 m
Wall to wall over carrier	26.6 ft.	8.1 m
Curb to curb	23.9 ft.	7.3 m
Tail Swing	Imperial	Metric
With counterweight	12.4 ft.	3.78 m



RT65 ROUGH TERRAIN CRANE



CRANE DIMENSIONS

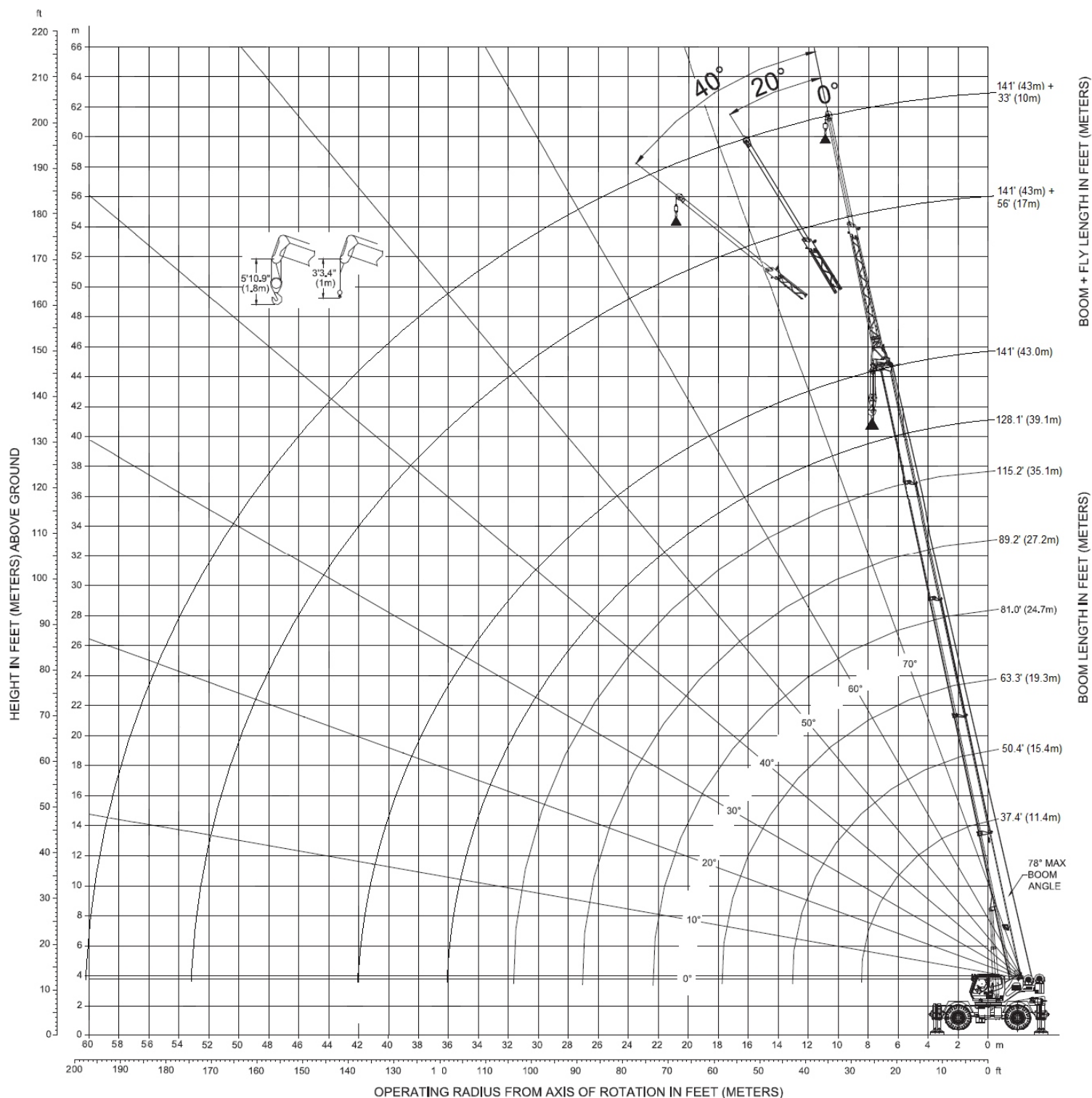




RT65 ROUGH TERRAIN CRANE



WORKING RANGE DIAGRAM



ACTUAL BOOM AND JIB LENGTHS ARE METRIC. THE FIGURES SHOWN ABOVE ARE APPROXIMATE CONVERSIONS TO FEET.



 FULLY EXTENDED OUTRIGGERS - MAIN BOOM CAPACITY 11,000 lbs. ctwt.22.6 ft. x 22.6 ft.ANSI B30.585%							
BOOM LENGTH IN FEET - CAPACITY LISTED IN POUNDS							
RADIUS	37.4	50.4	63.3	89.2	115.2	141.1	RADIUS
FT.							FT.
9	132280						9
10	121000	99200	77160				10
12	109780	98550	77160				12
15	92950	86890	71830	45390			15
20	71740	70830	59950	44870			20
25	57400	56530	51260	39260	29960		25
30	45510	44130	43070	34860	28040	20120	30
35		32540	31520	31340	25730	18360	35
40		24890	23990	26550	23530	16930	40
45			18680	21160	21660	15610	45
50			14740	17160	18210	14510	50
55			11680	14080	15130	13630	55
60				11630	12670	12750	60
65				9630	10680	11220	65
70				7970	9020	9570	70
75				6570	7630	8170	75
80				5380	6440	6990	80
85					5410	5960	85
90					4510	5070	90
95					3720	4280	95
100					3030	3590	100
105					2410	2970	105
110						2410	110

LIFTING CAPACITY NOTES:

Rated lifting capacities shown do not exceed 85% of the tipping loads. The weight of the hook block, hook ball and any additional auxiliary lifting devices are not calculated into the rated lifting capacity and must be deducted prior to operation.



MID POSITION OUTRIGGERS - MAIN BOOM CAPACITY							
11,000 lbs. cwt.		15.8 ft. x 22.6 ft.		ANSI B30.5		85%	
BOOM LENGTH IN FEET - CAPACITY LISTED IN POUNDS							
RADIUS	37.4	50.4	63.3	89.2	115.2	141.1	RADIUS
FT.							FT.
10	111100	99200	77160				10
12	96360	95360	77160				12
15	79530	78640	71830	45390			15
20	55120	53530	52270	44870			20
25	36480	35150	34020	36380	29960		25
30	26090	24820	23830	26200	27130	20120	30
35		18270	17390	19650	20570	18360	35
40		13730	12940	15140	16050	16490	40
45			9680	11840	12750	13210	45
50			7180	9310	10230	10700	50
55			5190	7330	8250	8720	55
60				5720	6650	7130	60
65				4390	5330	5810	65
70				3270	4220	4710	70
75				2320	3280	3770	75
80					2470	2970	80
85						2270	85

LIFTING CAPACITY NOTES:

Rated lifting capacities shown do not exceed 85% of the tipping loads. The weight of the hook block, hook ball and any additional auxiliary lifting devices are not calculated into the rated lifting capacity and must be deducted prior to operation.

FULLY RETRACTED OUTRIGGERS - MAIN BOOM CAPACITY 11,000 lbs. cwt.9 ft. x 22.6 ft.ANSI B30.585%							
BOOM LENGTH IN FEET - CAPACITY LISTED IN POUNDS							
RADIUS	37.4	50.4	63.3	89.2	115.2	141.1	RADIUS
FT.							FT.
10	79200	78120	77160				10
12	61220	59480	58040				12
15	41390	39990	38850	40870			15
20	25490	24160	23120	25200			20
25	17040	15860	14960	16940	17670		25
30	11840	10800	9990	11900	12640	12950	30
35		7370	6630	8510	9260	9600	35
40		4890	4210	6070	6830	7200	40
45			2380	4230	2010	5390	45
50				2790	3580	3980	50
55					2450	2850	55



RT65 ROUGH TERRAIN CRANE

	ON TIRES BOOM CENTERED			OVER FRONT
11,000 lbs. cwt.	ANSI B30.5	75%		
BOOM LENGTH IN FEET - CAPACITY LISTED IN POUNDS				
RADIUS	37.4	50.4	63.3	RADIUS
FT.				FT.
10	58300	57200	56320	10
12	50530	49440	48660	12
15	41640	40660	39780	15
20	31440	30450	29640	20
25	24530	23570	22800	25
30	19490	18580	17820	30
35		13650	12870	35
40		10090	9380	40
45			6790	45
50			4780	50
55			3180	55

ZOOMLION

RT65 ROUGH TERRAIN CRANE

	11,000 lbs. cwt.	360° ON TIRES ANSI B30.5	75%	360°
BOOM LENGTH IN FEET - CAPACITY LISTED IN POUNDS				
RADIUS	37.4	50.4	63.3	RADIUS
FT.				FT.
10	45560	44310	43220	10
12	37940	36700	35670	12
15	29670	28560	27620	15
20	20710	19580	18770	20
25	14950	13980	13090	25
30	10940	10000	9210	30
35		6990	6280	35
40		4770	4130	40
45			2270	45



RT65 ROUGH TERRAIN CRANE

	JIB CAPACITY AT RADIUS						85%
	ANSI B30.5						
33ft. (10m)							
	0° OFFSET		20° OFFSET		40° OFFSET		
Boom Angle (°)	Load Radius (ft.)	Capacity (lb.)	Load Radius (ft.)	Capacity (lb.)	Load Radius (ft.)	Capacity (lb.)	Boom Angle (°)
78	29.6	11330	39.0	6260	46.5	4600	78
76	35.5	10440	44.8	6040	52.1	4490	76
74	41.4	9670	50.5	5820	57.5	4380	74
72	47.2	9010	56.1	5590	62.9	4270	72
70	52.9	8460	61.7	5370	68.2	4160	70
68	58.6	8020	67.2	5150	73.4	4050	68
66	64.2	7580	72.6	5040	78.5	4050	66
64	69.7	7140	77.9	4930	83.6	3940	64
62	75.1	6810	83.1	4710	88.5	3940	62
60	80.4	6480	88.2	4600	93.2	3830	60
58	85.6	5590	93.1	4490	97.9	3830	58
56	90.7	4820	98.0	4380	102.4	3830	56
54	95.7	4160	102.7	3830	106.8	3630	54
52	100.5	3590	107.3	3320	111.1	3170	52
50	105.2	3080	111.7	2880	115.2	2750	50
48	109.8	2640	116.0	2490	119.2	2380	48
46	114.2	2270	120.2	2130	123.0	2050	46
44	118.5	1910	124.2	1800	126.7	1740	44



RT65 ROUGH TERRAIN CRANE

	JIB CAPACITY AT RADIUS						85%
	ANSI B30.5						
	56ft. (17m)						
	0° OFFSET		20° OFFSET		40° OFFSET		
Boom Angle (°)	Load Radius (ft.)	Capacity (lb.)	Load Radius (ft.)	Capacity (lb.)	Load Radius (ft.)	Capacity (lb.)	Boom Angle (°)
78	34.4	5820	51.2	3060	64.6	2290	78
76	41.1	5260	57.6	2950	70.6	2180	76
74	47.7	4930	64.0	2840	76.6	2180	74
72	54.3	4600	70.3	2730	82.4	2070	72
70	60.8	4270	76.5	2620	88.1	2070	70
68	67.2	4050	82.5	2620	93.7	2070	68
66	73.5	3830	88.5	2510	99.2	1960	66
64	79.7	3610	94.4	2400	104.5	1960	64
62	85.9	3390	100.1	2400	109.7	1960	62
60	91.9	3280	105.7	2290	114.8	1960	60
58	97.8	3060	111.2	2290	119.7	1960	58
56	103.5	2950	116.6	2180	124.5	1850	56
54	109.1	2840	121.7	2180	129.1	1850	54
52	114.6	2730	126.8	2070	133.5	1850	52
50	120.0	2600	131.6	2070	137.8	1850	50
48	125.2	2220	136.3	2000	141.9	1850	48
46	130.2	1890	140.8	1710	145.8	1600	46
44	135.0	1580	145.2	1450	149.6	1360	44